CLAIM AMENDMENT

1. (Currently Amended) A decision feedback equalizer for processing a sequence of digital symbols comprising:

a first feedback equalizer for generating a first output signal, for calculating an uncertainty value and for generating a first error signal receiving the sequence of digital symbols;

at least a second feedback equalizer, **which can be activated by the first feedback equalizer depending on said first error signal, for** generating a second output signal and for generating a second error signal receiving the sequence of digital symbols;

first and second error processing units receiving first and second error signals and generating a first and second error value;

a decision device receiving the first and second error values and generating a control signal; and

a switching unit controlled by the control signal for selecting the first or second output signal.

2. (Original) The decision feedback equalizer according to claim 1, further comprising:

a forward filter receiving the sequence of digital symbols and generating an output signal;

an adder receiving the forward filter output signal and a feedback output signal for generating an output signal;

a slicer receiving the adder output signal and generating an output signal; and

a feedback filter receiving the slicer output signal for generating the feedback output signal.

3. (Original) The decision feedback equalizer according to claim 1, further comprising:

a forward filter receiving the sequence of digital symbols and generating an output signal, wherein each decision feedback equalizer comprises:

an adder receiving the forward filter output signal and a feedback output signal for generating an output signal;

a slicer receiving the adder output signal and generating an output signal; and

a feedback filter receiving the slicer output signal for generating the feedback output signal.

4. (Original) The decision feedback equalizer according to claim 2, wherein each feedback equalizer comprises a buffer memory for storing the slicer output signal.

5. (Original) The decision feedback equalizer according to claim 3, wherein each feedback equalizer comprises a buffer memory for storing the slicer output signal.

6. (Original) The decision feedback equalizer according to claim 3, wherein the slicer is a Viterbi detector.

7. (Original) The decision feedback equalizer according to claim 1, wherein the decision device starts a decision process upon a predefined number of consecutive ambiguous decisions.

8. (Original) The decision feedback equalizer according to claim 7, wherein each feedback equalizer comprises a plurality of parameters and at least one parameter of the first feedback equalizer is set differently after starting the decision process.

9. (Original) The decision feedback equalizer according to claim 8, wherein after selection of the first or second output signal, the changed parameters of the selected feedback equalizer are transferred to the other feedback equalizer.

10. (Original) The decision feedback equalizer according to claim 3, wherein the forward filter and the feedback filters are adaptive.

11. (Original) The decision feedback equalizer according to claim 1, further comprising a plurality of feedback equalizers and associated error processing units.

12. (Currently Amended) A mobile unit comprising a receiver for receiving digital data, wherein the receiver comprises a decision feedback equalizer for processing a sequence of digital symbols having:

a first feedback equalizer for generating a first output signal, for calculating an uncertainty value and for generating a first error signal receiving the sequence of digital symbols;

at least a second feedback equalizer, **which can be activated by the first feedback equalizer depending on said first error signal, for** generating a second output signal and for generating a second error signal receiving the sequence of digital symbols;

first and second error processing units receiving first and second error signals and generating a first and second error value;

a decision device receiving the first and second error values and generating a control signal; and

a switching unit controlled by the control signal for selecting the first or second output signal.

13. (Original) A mobile unit according to claim 12, wherein the feedback equalizer comprises:

a forward filter receiving the sequence of digital symbols and generating an output signal;

an adder receiving the forward filter output signal and a feedback output signal for generating an output signal;

a slicer receiving the adder output signal and generating an output signal; and

a feedback filter receiving the slicer output signal for generating the feedback output signal.

14. (Original) A mobile unit according to claim 12, further comprising:

a forward filter receiving the sequence of digital symbols and generating an output signal, wherein each feedback equalizer comprises:

an adder receiving the forward filter output signal and a feedback output signal for generating an output signal;

a slicer receiving the adder output signal and generating an output signal; and

a feedback filter receiving the slicer output signal for generating the feedback output signal.

15. (Original) A mobile unit according to claim 13, wherein each feedback equalizer comprises a buffer memory for storing the slicer output signal.

16. (Original) A mobile unit according to claim 14, wherein each feedback equalizer comprises a buffer memory for storing the slicer output signal.

17. (Original) A mobile unit according to claim 14, wherein the slicer is a Viterbi detector.

18. (Original) A mobile unit according to claim 12, wherein the decision device starts a decision process upon a predefined number of consecutive ambiguous decisions.

19. (Original) A mobile unit according to claim 18, wherein each feedback equalizer comprises a plurality of parameters and at least one parameter of the first feedback equalizer is set differently after starting the decision process.

20. (Original) A mobile unit according to claim 19, wherein after selection of the first or second output signal, the changed parameters of the selected feedback equalizer are transferred to the other feedback equalizer.

21. (Original) A mobile unit according to claim 14, wherein the forward filter and the feedback filters are adaptive.

22. (Original) A mobile unit according to claim 12, further comprising a plurality of feedback equalizers and associated error processing units.

23. (Original) A method of processing a sequence of digital symbols comprising the steps of:

processing the sequence of digital symbols;

determining an uncertainty in the processing; and

if the uncertainty exceeds a predetermined threshold:

processing at least two sequences of digital symbols wherein at least one parameter is set differently in each sequence; and

deciding upon a calculated error for each sequence which sequence is used to generate an output signal.

24. (Original) A method according to claim 23, further comprising the steps of filtering the digital symbols through a forward filter prior to processing the sequence.

25. (Original) A method according to claim 24, wherein the step of processing the digital symbols comprises the steps of:

adding a feedback signal to the filtered signal;

applying the added signal to a slicer; and

filtering the output signal of the slicer through a feedback filter to generate the feedback signal.

26. (Original) A method according to claim 25, wherein the slicer is a Viterbi detector.

27. (Original) A method according to claim 23, wherein the step of deciding which processing path is selected is activated by an error threshold.

28. (Original) A method according to claim 27, further comprising the step of buffering the output of the processing.

29. (Original) A method according to claim 28, wherein the number of buffered output signals is proportional to the time for determining the decision.

30. (Original) A method according to claim 23, wherein the error is a mean square error or a number of consecutive ambiguous decisions.

31. (Original) A method according to claim 25, wherein the forward filter and the feedback filters are adaptive.

32. (Original) A method according to claim 27, wherein at least one parameter of the processing of the selected sequence is transferred to the processing of the other sequence.

33. (Currently Amended) A method of processing a sequence of digital symbols comprising the steps of:

processing the sequence of digital symbols **into a single output sequence**;

calculating an uncertainty; and

if the uncertainty exceeds a predefined threshold performing the steps of:

processing at least two **output** sequences of digital symbols each having at least one parameter different from the other;

calculating an error for each sequence; and

deciding upon the calculated error which **output** sequence is used to generate an output signal.

34. (Original) A method according to claim 33, further comprising the steps of filtering the digital symbols through a forward filter prior to processing the sequence.

35. (Original) A method according to claim 34, wherein the step of processing the digital symbols comprises the steps of:

adding a feedback signal to the filtered signal;

applying the added signal to a slicer; and

filtering the output signal of the slicer through a feedback filter to generate the feedback signal.

36. (Original) A method according to claim 35, wherein the slicer is a Viterbi detector.

37. (Original) A method according to claim 33, wherein the step of deciding which sequence is selected is activated by an error threshold.

38. (Original) A method according to claim 37, further comprising the step of buffering the output of the processing.

39. (Original) A method according to claim 38, wherein the number of buffered output signals is proportional to the time for determining the decision.

40. (Original) A method according to claim 33, wherein the error is a mean square error.

41. (Original) A method according to claim 33, wherein the error is calculated by the number of consecutive ambiguous decisions.

42. (Original) A method according to claim 35, wherein the forward filter and the feedback filters are adaptive.